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BY CAROL TENOPIR

Quality Control

EACH YEAR there is one topic that stands out as *the* hot topic in the online world. In 1986 it was unquestionably CD-ROM. Exciting new technologies tend to take our attention away from the continuing, day-to-day issues and problems in searching. Intermediaries are concerned with more than the technology of online; more and more we are concerned about the quality of the product delivered via the technology. The issue of quality control, while not so glamorous as new technologies, continues to resurface as a serious concern.

Quality control is actually not a single issue, but involves several categories:

- quality of the database itself;
- quality of the sources that are used to create the database;
- quality of the telecommunications link;
- quality of the online vendor; or
- quality of the online searchers and the service they provide as intermediaries.

Database quality

Quality of the database itself, the most visible category, takes several forms:

- efficacy of error checking when the database is created—Good error checking will eliminate typographical errors, duplicate records with different accession numbers, and the same accession number used for more than one record. Although seemingly trivial, typographical errors can result in relevant records being missed, and, at the least, create a shoddy-looking product. Duplicate records result in a direct cost to the user now that most databases charge for each record retrieved.

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- correct and consistent record description—In a high-quality database, the same fields always are used to mean the same thing, formatting of information in fields is consistent, and all citation information is correct. Inconsistent contents in fields impairs online retrieval; incorrect or inconsistent citation information impedes retrieval of complete documents.
- correct and consistent subject indexing—The use of a well-developed, cross-referenced, controlled vocabulary by qualified indexers will make subject index terms a more meaningful and useful retrieval tool. Searchers can plan strategy before going online and have more confidence in their search results. Indexing can never be 100 percent consistent, but spot checking and a policy of concern by the database producer can make it as good as possible.
- timely updating—Though timeliness is sometimes in conflict with quality indexing, database producers should at least be truthful and consistent about their updating schedule.

Accuracy of information

More pernicious and more difficult to detect is poor quality of the information that is used to create a database. Database quality has been tested in court several times recently. The *Greenmoss Builders* v. *Dun and Bradstreet* case went all the way to the Supreme Court in 1984–85. Dun and Bradstreet used a teenager to gather primary information from the U.S. Federal Bankruptcy Court for input into their Business Information Report database. The student mistakenly reported that Greenmoss had declared bankruptcy, when in fact one of their one-time employees had declared personal bankruptcy. Greenmoss was able to show actual damages as a result of the dissemination of the erroneous information. They were also awarded punitive damages, even though Dun and Bradstreet argued that the error was not made maliciously. "Simple negligence" was enough because the matter was not judged to be of "public concern."

In 1986 the Supreme Court let stand a ruling that the Jeppesen-Sanderson chart-making subsidiary of Times Mirror was liable in a 1973 plane crash that happened because a Jeppesen-Sanderson chart erroneously depicted the flight approach into an Alaskan airport. Though the chart was based on information supplied by the FAA, Jeppesen-Sanderson was judged to be liable because under "strict liability" a company that makes a defective product is liable whether or not there is negligence.

Recently the families of a group of Massachusetts lobstermen were awarded a settlement of $1.25 million. Trusting a National Weather Service report of fair weather, the lobster fleet had put out to sea but an unexpected storm came up and the men drowned. The government was found to be liable.

Intermediaries are at the mercy of the information integrity of the databases they search. If an intermediary passes on incorrect information to a patron, are you or your institution morally or legally liable for any damages that may result? "Information malpractice" (an issue raised by Anne Mintz in *LJ*) is likely to become more of a concern for searchers and database producers in the future. Some database producers are beginning to print disclaimers about the accuracy of the information in their products, but few information intermediaries do so.

Data quality is not expected to get better soon. Dun and Bradstreet now sends information to be included about a company to that company for comment or correction, but many database producers resist such quality assurance procedures because they fear online users will not be willing to pay higher online fees to offset the extra expense or put up with resultant time lags. Jean-Paul Emard of Meckler Publishing warns with the "cutback in government funding for data collection and research, the quality of data gathering is going to diminish. It portends to open up a Pandora's box of dirty data."

Quality of sources

A related issue is the quality of the source materials cited. A search-

er is not likely to be sued over the retrieval of poorly written articles or trivia in an online search, but poor-quality articles do clutter up searches on today's huge databases.

Most users do not want comprehensive searches that retrieve hundreds of articles; some users do. Database producers risk the onus of censorship if they begin to eliminate journals or articles based on nebulous quality criteria. The Institute for Scientific Information (ISI) was once sued by the publishers of the *Scanning Electron Microscopy* journal, who claimed that ISI violated antitrust laws by not including their journal in ISI's *Current Contents*.

Clear inclusion criteria and publication of a list of sources included is one way many database producers help the intermediary to judge quality. Indexing that differentiates major and minor topics is of some use. A field with an intellectual quality decision or comment (some databases assign letter grades to reviews) may be a necessary feature in the future, though it makes most producers understandably nervous. One premise of ISI's citation indexes is that the number of times an article is cited reflects on its importance to a topic. Other such nontraditional retrieval aids may be needed.

Telecommunications quality

Poor quality in a telecommunications link can be irritating, but is more difficult to solve because it is more difficult to pinpoint. Quality of local telephone lines varies tremendously, the amount of traffic varies at each node, and the link made with an online vendor is different each time. DIALOG has attempted to provide better (and less expensive) service by creating their own telecommunications network. Experienced searchers get around poor telecommunications quality with tricks: searching at less popular times, hanging up and redialing to get a new line, and switching from one network to another.

The New England Online User's Group (NENON) has collected telecommunications trouble reports from its members since 1982. Complaints include noisy lines that cause garbled characters, disconnections in the midst of a search, and slow response time. Searchers are asked to record the specific complaint plus the date, time of day, network and vendor names, and port number. NENON batches the reports and forwards them to the appropriate network or vendor.

Vendor quality

Vendor quality depends on the telecommunications link, but goes beyond that. Other factors include:

- timely and consistently followed update schedules;
- adequate computer power to provide good response time even at peak periods;
- documentation that is kept up-to-date on a regular basis and is routinely checked for accuracy;
- knowledgeable personnel on trouble phone lines;
- consistent system response to input;
- meaningful error messages; and
- software that helps rather than hinders the searcher.

Barbara Quint, editor of *Database Searcher* (formerly *Database Enduser*), is planning to give awards to online vendors who "don't beat up on searchers." In her November 1986 editorial she calls for searchers to submit instances of "errors" that they make repeatedly (such as missing retrieval due to inconsistent use of singulars and plurals). Correcting these kinds of repetitious errors is a natural "job for a machine," not human searchers. Quint says, "A poor search is a mutual problem," between the vendor and the searcher. Search software should help searchers find the information they are looking for and help them get out of trouble. Few vendors have software that succeeds at this because "software hasn't substantially changed for 15 years." It's time vendors "listen to searchers" or "searchers must remember to shop around."

Quality of searchers

Finally, quality depends on the online searchers themselves and the services they provide. Marcia Dellenbach of the Chicago Public Library addressed this issue at the Online '86 meeting in Chicago in November.

Chicago Public measures the quality of their search service by asking patrons about their satisfaction (about 80-90 percent are satisfied) and by looking at the printouts waiting to be picked up by patrons, to "judge whether or not the question has been answered, if the most appropriate databases were used, and if the strategy used makes sense."

In order to maintain a high quality search service, Chicago Public emphasizes continued training for and communications among searchers. It budgets for vendor, database, and in-house training classes. Vendor and database material is conscientiously updated and distributed to all searchers. Regular meetings allow new features and strategies to be shared. Administrative support and constant reevaluation of the search service are other trails followed.

The attempt to develop a professional searcher's code of ethics also addresses the issues of searcher quality. A proposed code includes ethical guidelines for such things as maintaining awareness of new information sources, making an unbiased selection of databases, and keeping search skills updated.

Action

The Quality Assurance Committee of the New England Online User's Group is encouraging searchers from all over the country to record instances of poor quality on the database, telecommunications, or vendor levels and forward them to NENON, which will send them to the appropriate agencies. A copy of their Trouble Report form is available on the NENON electronic bulletin board on DIALOG's DIALMAIL. Contact Mary Chitty, Quality Assurance Committee, NENON, Inc., P.O. Box 753, Cambridge, MA 02238; 617-732-2813. Other online user's groups are urged to initiate similar campaigns. Perhaps the most effective tactic, however, is to select those databases and online systems that meet our own standards for quality.

Bibliography

Dellenbach, Marcia, "Quality Control and Effective In-House Procedures for Online Managers," *Online '86 Conference Proceedings*, Online, Inc., 1986, p. 52-56.

Mintz, Anne P., "Information Practice and Malpractice," *LJ*, September 15, 1985, p. 38-43.

Mintz, Anne P., "Information Practice and Malpractice . . . Do We Need Malpractice Insurance?" *Online*, July 1984, p. 20-26.

Pemberton, Jeff, "The Dark Side of Online Information—Dirty Data," *Database*, December 1983, p. 6-7.

Shaver, Donna B., Nancy S. Hewison, & Leslie W. Wykoff, "Ethics for Online Intermediaries," *Special Libraries*, Fall 1985, p. 238-245.

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